



## Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-224



### **B-2 EHF SATCOM AND COMPUTER INCREMENT I**

As of December 31, 2011

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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**UNCLASSIFIED**

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## Program Information

**Designation And Nomenclature (Popular Name)**

B-2 Extremely High Frequency SATCOM Capability, Increment 1 (B-2 EHF SATCOM AND COMPUTER INCREMENT I)

**DoD Component**

Air Force

## Responsible Office

**Responsible Office**

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## References

**SAR Baseline (Development Estimate)**

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated May 30, 2007

**Approved APB**

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated May 30, 2007

## **Mission and Description**

The aging Ultra High Frequency (UHF) Military Satellite Communications (MILSATCOM) system is being phased out and replaced by the Advanced Extremely High Frequency (AEHF) Satellite Communications (SATCOM) system. The B-2 Extremely High Frequency (EHF) SATCOM program supports the replacement of the present B-2 UHF Terminal Set with an EHF SATCOM system that will be compatible with the legacy EHF Satellite (MILSTAR I/II) constellation and the future AEHF satellite constellation. The B-2 EHF SATCOM system is one element of a system of systems that includes the AEHF satellites, multiple platforms, and the Family of Advanced Beyond-Line-of-Site Terminals (FAB-T). The B-2 EHF SATCOM upgrade is a three increment program. Increment 1 will provide upgraded flight management computer processors, increased data storage, re-hosted flight management operational flight program (FMOFP), and a high bandwidth data bus in order to prevent degradation of existing capabilities resulting from EHF SATCOM installation. Additionally, the Increment 1 Integrated Processing Unit (IPU) and Disk Drive Unit (DDU) architectures establish a high speed fiber optic structure network as well as maintain connectivity to legacy interfaces. Increment 1 provides a processing growth path to future B-2 upgrades. EHF SATCOM Increment 2 will ensure continuing secure, survivable communication capability; and Increment 3 will enable the B-2 to interface with the Global Information Grid (GIG) and provide Net Ready capability. This SAR addresses Increment I only.

## Executive Summary

The program realized several significant accomplishments during 2011. The Air Force Review Board (AFRB) EHF Increment I Low Rate Initial Production (LRIP) Milestone C Briefing was conducted on November 3, 2011. The review documented milestone readiness by successful completion of all Milestone C entrance criteria to include: a favorable Operational Assessment from the Air Force Operational Test and Evaluation Center (AFOTEC), a Joint Requirements Oversight Council (JROC) approved Capability Production Document (CPD), a successful Production Readiness Review, Technology Readiness Levels assessed 8 or higher, and receipt of a production proposal. The final Acquisition Decision Memorandum approving the Milestone C Acquisition Program Baseline (APB) and LRIP contract award is contingent upon successful contract negotiations and implementation of affordability targets. The formal Service Cost Position and APB will be submitted to the Milestone Decision Authority (MDA) prior to the production contract award, which is planned for late April 2012. A successful System Verification Review (SVR) with Northrop-Grumman in August 2011 verified the majority of system level requirements with minor action items remaining to complete and document for final verification artifacts. Those action items were closed in November 2011 formally closing out the SVR.

Early maintenance issues with the B-2 test aircraft added pressure to the Development Test schedule and to moving the program forward into Dedicated Initial Operational Test and Evaluation (DIOT&E) testing planned in FY 2012. The team continues to actively work aircraft maintenance issues to include increased use of contractor maintenance support. Implementation of a B-2 Flight Test Demonstration began August 1, 2011, at the B-2 Combined Test Force at Edwards AFB to increase sortie generation rates by allowing Northrop-Grumman to maintain the test aircraft. Test point burndown is tracked weekly in support of formal entry into DIOT&E. The current estimate for the APB Final DIOT&E Flight is July 2012, which remains within the threshold date. Additional resources required for software problem report burndown have added pressure to the System Development and Demonstration (SDD) contract cost baseline; no pressure to APB cost baseline. The Variance at Completion is projected at \$10.0M (5% of SDD contract overrun), which is a significant improvement from the \$13.7M projected at the end of 2010. Pressure to cost variance has stabilized but will continue through final PD6.2 testing expected to complete in the second quarter of FY 2012.

The program's last major software build, PD 6.1.3, was turned over to flight test on September 1, 2011. The completion of the PD 6.1.3 software development marks the end of the program's significant software development work. The program's final software drop, PD 6.2, was planned as a place holder to incorporate corrections for yet-to-be discovered software deficiencies resulting from on-going flight tests. In October 2011 the Combined Test Force at Edwards AFB successfully completed an 18.5 hour combined Developmental Test/Operational Test long endurance sortie including multiple air refuelings, an overflight of the North Pole, demonstration of satellite communication and navigation performance, and culminating with inert nuclear shape weapon drops on the Edwards AFB range. Despite ongoing maintenance issues with the B-2 test aircraft, significant progress was made in test point burn down during 2011. To date, flight test has completed over 84% of planned test points and is on track to complete in the second quarter of FY 2012.

The loss of an aircraft in February 2008 and realignment of depot activation funds have applied pressure to the Average Procurement Unit Cost (APUC). The small fleet size and relatively low production cost magnifies the effect of these changes. The program mitigated the pressure to the APUC by pursuing a two lot buy, production efficiency initiative, instead of three production lots. The FY 2013 President's Budget incorporated the program's production efficiency initiative and restructured the three-year production buy to two-year buy profile (5-11).

There are no significant software-related issues with this program at this time.

## Threshold Breaches

### APB Breaches

<b>Schedule</b>		<input type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>Unit Cost</b>	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

### Nunn-McCurdy Breaches

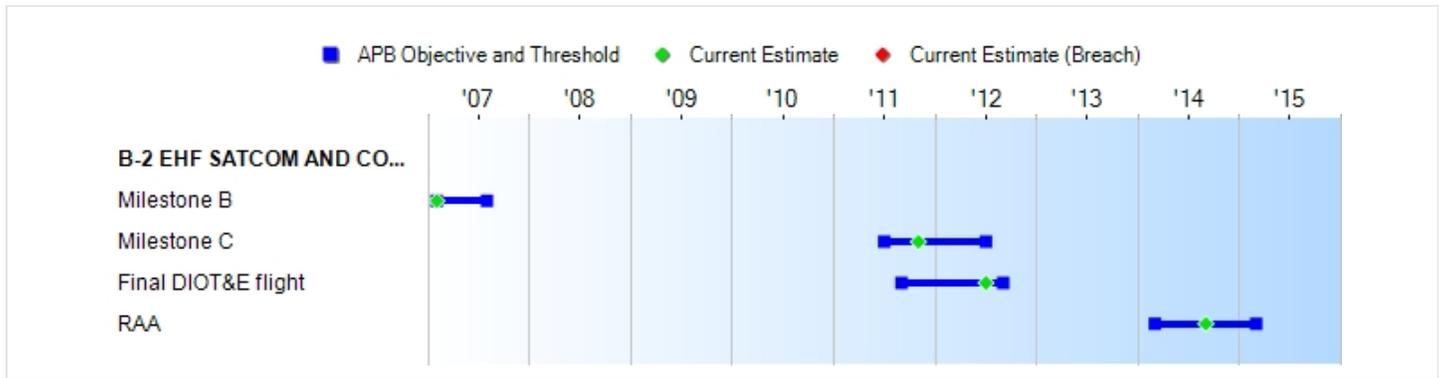
#### Current UCR Baseline

PAUC	None
APUC	None

#### Original UCR Baseline

PAUC	None
APUC	None

**Schedule**



Milestones	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate
Milestone B	FEB 2007	FEB 2007	AUG 2007	FEB 2007
Milestone C	JUL 2011	JUL 2011	JUL 2012	NOV 2011 (Ch-1)
Final DIOT&E flight	SEP 2011	SEP 2011	SEP 2012	JUL 2012 (Ch-2)
RAA	MAR 2014	MAR 2014	MAR 2015	SEP 2014

**Acronyms And Abbreviations**

DIOT&E - Dedicated Initial Operational Test and Evaluation  
 RAA - Required Assets Available

**Change Explanations**

(Ch-1) Milestone C changed from October 2011 to November 2011 to reflect the actual date (one week slip from late October 2011 to early November 2011).

(Ch-2) Final DIOT&E flight changed from May 2012 to July 2012 due to a mix of early install issues, aircraft health, and higher B-2 test priorities at the Air Force Flight Test Center (AFFTC).

**Memo**

Required Assets Available (RAA) is defined as eight assigned aircraft modified, sufficient aircrews and maintenance personnel trained, sufficient aircrew and maintenance trainers upgraded, formal aircrew and maintenance technical orders delivered and adequate spares available to support 509th Bombardment Wing operational tasking. Initial Operational Capability is declared by the Commander, Air Force Global Strike Command when the B-2 operational squadrons have completed each incremental upgrade.

## Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Information Assurance (IA)	Protection consistent w/the classification of data being stored, processed, or transferred 100% of the time	Protection consistent w/the classification of data being stored, processed, or transferred 100% of the time	Protection consistent w/the classification of data being stored, processed, or transferred 100% of the time	TBD	Protection consistent w/the classification of data being stored, processed, or transferred 100% of the time
Flight Management Functionality	IFC-P5 functionality shall be maintained	IFC-P5 functionality shall be maintained	IFC-P5 functionality shall be maintained	TBD	IFC-P5 functionality shall be maintained

**Requirements Source:** Capability Development Document (CDD), dated July 28, 2006.

### Acronyms And Abbreviations

IFC - Integrated Functional Capability

### Change Explanations

None

### Memo

IFC-P5 is the fifth major block software release for the B-2 Weapon System and is specifically tied to the Radar Modernization Program.

## Track To Budget

### General Memo

This SAR includes funding only for Increment 1 of the B-2 EHF SATCOM and Computer Upgrade Program.

RDT&E funding for this program is provided under Program Element 0101127F, project 6022. Prior to FY 2013, this project 6022 also funded B-2 EHF Increment 2 .

Aircraft Procurement, Air Force BA 05 line is shared for all B-2 Modifications (EHF SATCOM is modification number 110026 on the Exhibit P-40, Budget Item Justification). Funding for Initial Spares is in the shared BA 06 line; funding for Post Production Support is provided in BA 07 (ICN 000075), and funding for Other Production is provided in BA 07 (ICN B00200 and ICN B002B0). The BA 07 line is shared for all B-2 Modifications.

### RDT&E

APPN 3600	BA 07	PE 0101127F	(Air Force)	
	Project 5345	B-2 EHF Inc 1 SATCOM and Computer Upgrade	(Shared)	(Sunk)
	Complete FY 2011			
	Project 6022	B-2 EHF Inc 1 SATCOM and Computer Upgrade	(Shared)	
APPN 3600	BA 05	PE 0604240F	(Air Force)	
	Project 3843	B-2 EHF Inc 1 SATCOM and Computer Upgrade	(Shared)	(Sunk)
	Complete FY 2009			

### Procurement

APPN 3010	BA 07	PE 0101127F	(Air Force)	
	ICN 000075	B-2 EHF Inc 1 SATCOM and Computer Upgrade Product Support / Depot Activation	(Shared)	
APPN 3010	BA 06	PE 0101127F	(Air Force)	
	ICN 000999	B-2 EHF Inc 1 SATCOM and Computer Upgrade Initial Spares	(Shared)	
APPN 3010	BA 05	PE 0101127F	(Air Force)	
	ICN B00200	B-2 EHF Inc 1 SATCOM and Computer Upgrade Modifications	(Shared)	

APPN 3010	BA 07	PE 0101127F	(Air Force)	
	ICN B00200	B-2 EHF Inc 1 SATCOM and Computer Upgrade Interim Contractor Support		(Sunk)
	ICN B002B0	B-2 EHF Inc 1 SATCOM and Computer Upgrade Interim Contractor Support	(Shared)	

## Cost and Funding

### Cost Summary

#### Total Acquisition Cost and Quantity

Appropriation	BY2007 \$M			BY2007 \$M	TY \$M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	544.9	544.9	599.4	421.7	574.4	574.4	440.7
Procurement	114.8	114.8	126.3	116.7	131.7	131.7	133.3
Flyaway	95.8	--	--	96.8	109.6	--	110.4
Recurring	95.8	--	--	96.8	109.6	--	110.4
Non Recurring	0.0	--	--	0.0	0.0	--	0.0
Support	19.0	--	--	19.9	22.1	--	22.9
Other Support	12.2	--	--	8.4	14.0	--	9.6
Initial Spares	6.8	--	--	11.5	8.1	--	13.3
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
<b>Total</b>	<b>659.7</b>	<b>659.7</b>	<b>N/A</b>	<b>538.4</b>	<b>706.1</b>	<b>706.1</b>	<b>574.0</b>

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E		4	4
Procurement		17	16
<b>Total</b>		<b>21</b>	<b>20</b>

The quantity reflected in the current estimate is a result of the loss of a B-2 aircraft, tail no. 89-0127, in February 2008.

Unit of Measure: One aircraft modified with two Integrated Processing Units (IPUs) and two Disk Drive Units (DDUs) and their associated software and hardware.

## Cost and Funding

### Funding Summary

#### Appropriation and Quantity Summary FY2013 President's Budget / December 2011 SAR (TY\$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	377.3	57.1	6.3	0.0	0.0	0.0	0.0	0.0	440.7
Procurement	0.0	34.2	74.7	13.6	10.1	0.7	0.0	0.0	133.3
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2013 Total	377.3	91.3	81.0	13.6	10.1	0.7	0.0	0.0	574.0
PB 2012 Total	418.7	91.4	52.8	34.5	11.6	7.5	0.0	0.0	616.5
Delta	-41.4	-0.1	28.2	-20.9	-1.5	-6.8	0.0	0.0	-42.5

Program production efficiency initiative reduces three-year production buy (5-6-5) to two-year buy profile (5-11).

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	4	0	0	0	0	0	0	0	0	4
Production	0	0	5	11	0	0	0	0	0	16
PB 2013 Total	4	0	5	11	0	0	0	0	0	20
PB 2012 Total	4	0	5	6	5	0	0	0	0	20
Delta	0	0	0	5	-5	0	0	0	0	0

## Cost and Funding

### Annual Funding By Appropriation

#### Annual Funding TY\$

#### 3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2005	--	--	--	--	--	--	4.4
2006	--	--	--	--	--	--	38.3
2007	--	--	--	--	--	--	75.7
2008	--	--	--	--	--	--	71.6
2009	--	--	--	--	--	--	85.0
2010	--	--	--	--	--	--	49.5
2011	--	--	--	--	--	--	52.8
2012	--	--	--	--	--	--	57.1
2013	--	--	--	--	--	--	6.3
<b>Subtotal</b>	<b>4</b>	--	--	--	--	--	<b>440.7</b>

**Annual Funding BY\$****3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2007 \$M</b>	<b>Non End Item Recurring Flyaway BY 2007 \$M</b>	<b>Non Recurring Flyaway BY 2007 \$M</b>	<b>Total Flyaway BY 2007 \$M</b>	<b>Total Support BY 2007 \$M</b>	<b>Total Program BY 2007 \$M</b>
2005	--	--	--	--	--	--	4.6
2006	--	--	--	--	--	--	38.8
2007	--	--	--	--	--	--	74.8
2008	--	--	--	--	--	--	69.3
2009	--	--	--	--	--	--	81.2
2010	--	--	--	--	--	--	46.7
2011	--	--	--	--	--	--	48.8
2012	--	--	--	--	--	--	51.9
2013	--	--	--	--	--	--	5.6
<b>Subtotal</b>	<b>4</b>	--	--	--	--	--	<b>421.7</b>

**Annual Funding TY\$****3010 | Procurement | Aircraft Procurement, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway TY \$M</b>	<b>Non End Item Recurring Flyaway TY \$M</b>	<b>Non Recurring Flyaway TY \$M</b>	<b>Total Flyaway TY \$M</b>	<b>Total Support TY \$M</b>	<b>Total Program TY \$M</b>
2012	5	27.9	1.6	--	29.5	4.7	34.2
2013	11	54.9	10.1	--	65.0	9.7	74.7
2014	--	--	7.5	--	7.5	6.1	13.6
2015	--	--	8.4	--	8.4	1.7	10.1
2016	--	--	--	--	--	0.7	0.7
<b>Subtotal</b>	<b>16</b>	<b>82.8</b>	<b>27.6</b>	<b>--</b>	<b>110.4</b>	<b>22.9</b>	<b>133.3</b>

**Annual Funding BY\$****3010 | Procurement | Aircraft Procurement, Air Force**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2007 \$M</b>	<b>Non End Item Recurring Flyaway BY 2007 \$M</b>	<b>Non Recurring Flyaway BY 2007 \$M</b>	<b>Total Flyaway BY 2007 \$M</b>	<b>Total Support BY 2007 \$M</b>	<b>Total Program BY 2007 \$M</b>
2012	5	24.9	1.4	--	26.3	4.2	30.5
2013	11	48.1	8.8	--	56.9	8.5	65.4
2014	--	--	6.5	--	6.5	5.2	11.7
2015	--	--	7.1	--	7.1	1.4	8.5
2016	--	--	--	--	--	0.6	0.6
<b>Subtotal</b>	<b>16</b>	<b>73.0</b>	<b>23.8</b>	<b>--</b>	<b>96.8</b>	<b>19.9</b>	<b>116.7</b>

**Low Rate Initial Production**

	<b>Initial LRIP Decision</b>	<b>Current Total LRIP</b>
<b>Approval Date</b>	2/22/2007	1/14/2011
<b>Approved Quantity</b>	2	5
<b>Reference</b>	ADM	ADM
<b>Start Year</b>	2012	2012
<b>End Year</b>	2012	2012

The Low Rate Initial Production (LRIP) quantity is five units, as approved in the Acquisition Decision Memorandum dated January 14, 2011, an increase from two units approved at Milestone B in 2007. The five unit LRIP quantity exceeds ten percent of the total buy quantity, but is necessary to achieve cost efficiencies within the small B-2 fleet and to deliver this capability in a timely manner.

**Foreign Military Sales**

None

**Nuclear Cost**

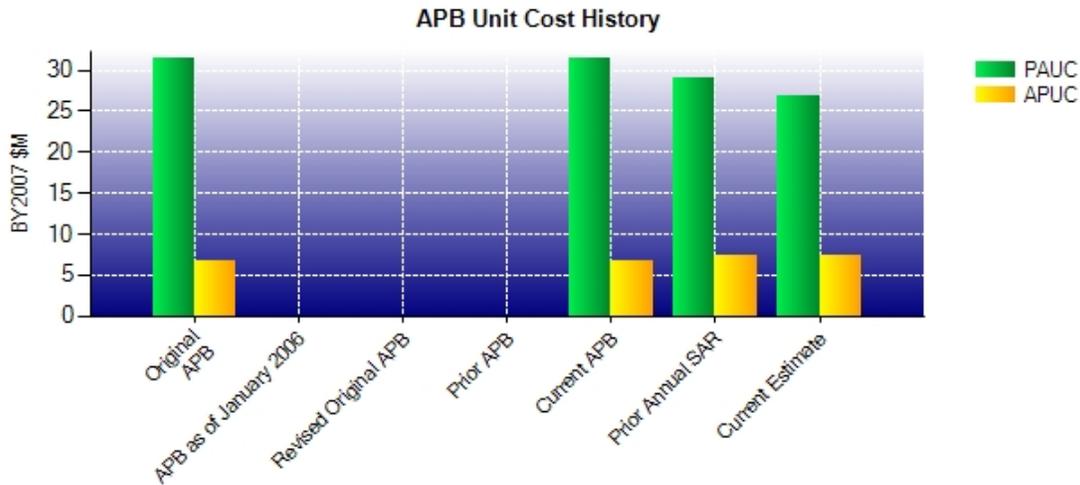
None

**Unit Cost****Unit Cost Report**

	BY2007 \$M	BY2007 \$M	
Unit Cost	Current UCR Baseline (MAY 2007 APB)	Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	659.7	538.4	
Quantity	21	20	
Unit Cost	31.414	26.920	-14.31
Average Procurement Unit Cost (APUC)			
Cost	114.8	116.7	
Quantity	17	16	
Unit Cost	6.753	7.294	+8.01

	BY2007 \$M	BY2007 \$M	
Unit Cost	Original UCR Baseline (MAY 2007 APB)	Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	659.7	538.4	
Quantity	21	20	
Unit Cost	31.414	26.920	-14.31
Average Procurement Unit Cost (APUC)			
Cost	114.8	116.7	
Quantity	17	16	
Unit Cost	6.753	7.294	+8.01

### Unit Cost History



	Date	BY2007 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
<b>Original APB</b>	MAY 2007	31.414	6.753	33.624	7.747
<b>APB as of January 2006</b>	N/A	N/A	N/A	N/A	N/A
<b>Revised Original APB</b>	N/A	N/A	N/A	N/A	N/A
<b>Prior APB</b>	N/A	N/A	N/A	N/A	N/A
<b>Current APB</b>	MAY 2007	31.414	6.753	33.624	7.747
<b>Prior Annual SAR</b>	DEC 2010	29.045	7.400	30.825	8.400
<b>Current Estimate</b>	DEC 2011	26.920	7.294	28.700	8.331

### SAR Unit Cost History

#### Current SAR Baseline to Current Estimate (TY \$M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
33.624	-0.350	1.381	0.375	0.000	-6.395	0.000	0.065	-4.924	28.700

#### Current SAR Baseline to Current Estimate (TY \$M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
7.747	-0.150	0.109	0.469	0.000	0.075	0.000	0.081	0.584	8.331

**SAR Baseline History**

<b>Item/Event</b>	<b>SAR Planning Estimate (PE)</b>	<b>SAR Development Estimate (DE)</b>	<b>SAR Production Estimate (PdE)</b>	<b>Current Estimate</b>
Milestone I	N/A	N/A	N/A	N/A
Milestone B	N/A	FEB 2007	N/A	FEB 2007
Milestone C	N/A	JUL 2011	N/A	NOV 2011
IOC	N/A	MAR 2014	N/A	SEP 2014
Total Cost (TY \$M)	N/A	706.1	N/A	574.0
Total Quantity	N/A	21	N/A	20
Prog. Acq. Unit Cost (PAUC)	N/A	33.624	N/A	28.700

Required Assets Available (RAA) is used in place of Initial Operational Capability (IOC).

**Cost Variance****Cost Variance Summary**

<b>Summary Then Year \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Dev Est)	574.4	131.7	--	706.1
Previous Changes				
Economic	-6.4	-4.1	--	-10.5
Quantity	--	-6.0	--	-6.0
Schedule	--	+7.9	--	+7.9
Engineering	--	--	--	--
Estimating	-85.9	+3.1	--	-82.8
Other	--	--	--	--
Support	--	+1.8	--	+1.8
Subtotal	-92.3	+2.7	--	-89.6
Current Changes				
Economic	+1.8	+1.7	--	+3.5
Quantity	--	--	--	--
Schedule	--	-0.4	--	-0.4
Engineering	--	--	--	--
Estimating	-43.2	-1.9	--	-45.1
Other	--	--	--	--
Support	--	-0.5	--	-0.5
Subtotal	-41.4	-1.1	--	-42.5
Total Changes	-133.7	+1.6	--	-132.1
CE - Cost Variance	440.7	133.3	--	574.0
CE - Cost & Funding	440.7	133.3	--	574.0

<b>Summary Base Year 2007 \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Dev Est)	544.9	114.8	--	659.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	-5.3	--	-5.3
Schedule	--	+5.3	--	+5.3
Engineering	--	--	--	--
Estimating	-82.4	+2.3	--	-80.1
Other	--	--	--	--
Support	--	+1.3	--	+1.3
<b>Subtotal</b>	<b>-82.4</b>	<b>+3.6</b>	<b>--</b>	<b>-78.8</b>
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-40.8	-1.3	--	-42.1
Other	--	--	--	--
Support	--	-0.4	--	-0.4
<b>Subtotal</b>	<b>-40.8</b>	<b>-1.7</b>	<b>--</b>	<b>-42.5</b>
<b>Total Changes</b>	<b>-123.2</b>	<b>+1.9</b>	<b>--</b>	<b>-121.3</b>
CE - Cost Variance	421.7	116.7	--	538.4
CE - Cost & Funding	421.7	116.7	--	538.4

Previous Estimate: December 2010

<b>RDT&amp;E</b>	<b>\$M</b>	
	<b>Base Year</b>	<b>Then Year</b>
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	+1.8
Adjustment for current and prior escalation. (Estimating)	-1.5	-1.7
Decrease due to unrealized risk and fact of life changes. FY 2011 funds realigned to other B-2 programs (Estimating)	-39.3	-41.5
RDT&E Subtotal	-40.8	-41.4

<b>Procurement</b>	<b>\$M</b>	
	<b>Base Year</b>	<b>Then Year</b>
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	+1.7
Acceleration of procurement buy profile. Program production initiative to reduce three-year production buy (5-6-5) to two-year buy profile (5-11). (Schedule)	0.0	-0.4
Adjustment for current and prior escalation. (Estimating)	-0.4	-0.4
Decrease for fact of life changes and procurement acceleration cleanup. (Estimating)	-0.9	-1.5
Decrease in Other Support. (Support)	-0.1	0.0
Decrease in Initial Spares. (Support)	-0.3	-0.5
Procurement Subtotal	-1.7	-1.1

## Contracts

### Appropriation: RDT&E

Contract Name	<b>EHF SatCom Increment 1 SDD (DO0039)</b>
Contractor	Northrop Grumman
Contractor Location	Palmdale, CA 93550
Contract Number, Type	F33657-99-D-0028/39, CPAF
Award Date	May 31, 2007
Definitization Date	May 31, 2007

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
183.9	N/A	4	227.2	N/A	4	220.3	222.2

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	-10.2	-1.1
Previous Cumulative Variances	-9.0	-1.1
Net Change	-1.2	+0.0

### Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased cost to resolve software deficiencies. Contract performance data is based on the January 24, 2012 Contract Performance Report (CPR) which includes data as of December 31, 2011.

### Contract Comments

The difference between the initial contract price target and the current contract price target is due to contract changes to acquire additional hardware required to support operational test activities and Software Integration Lab and supplier obsolescence support.

The B-2 EHF Increment 1 System Development and Demonstration effort is Delivery Order Number 39 on the B-2 Flexible Acquisition and Sustainment Team (FAST) contract. Dollars are in millions.

Contract award on May 31, 2007 included an early effective date of May 15, 2007.

**Deliveries and Expenditures**

<b>Deliveries To Date</b>	<b>Plan To Date</b>	<b>Actual To Date</b>	<b>Total Quantity</b>	<b>Percent Delivered</b>
Development	4	4	4	100.00%
Production	0	0	16	0.00%
Total Program Quantities Delivered	4	4	20	20.00%

<b>Expenditures and Appropriations (TY \$M)</b>			
Total Acquisition Cost	574.0	Years Appropriated	8
Expenditures To Date	409.3	Percent Years Appropriated	66.67%
Percent Expended	71.31%	Appropriated to Date	468.6
Total Funding Years	12	Percent Appropriated	81.64%

## Operating and Support Cost

### Assumptions And Ground Rules

The maintenance concept for the B-2 EHF is two level (organizational and depot). Organizational maintenance will consist of Air Force maintenance personnel removing and replacing failed items, performing preventative maintenance, and conducting fault isolation actions. All repairs of the Line Replaceable Units removed from the B-2 aircraft will be accomplished at the depot level. The source of repair for depot maintenance for Increment 1 was initially projected to be Warner Robins Air Logistics Center (WR-ALC) for the two Line Replaceable Units, the Integrated Processing Unit and the Disk Drive Unit. An OUSD/AT&L action item out of July 2011 Defense Acquisition Executive Summary briefing directed reassessment of the organic depot strategy based on Line Replaceable Unit reliability projections. In response, a Workload Shift package (from organic repair at WR-ALC to Contractor Depot Repair) was submitted to AFMC/A4 in October 2011 and is presently in review. The System Development and Demonstration (SDD) contract requires delivery of repair data and associated training. The planning for establishing this repair capability will be accomplished during the SDD contract. There are no increased operating and support (O&S) costs associated with B-2 EHF SATCOM and Computer Upgrade, Increment 1, because improved reliability and maintainability provided by this modification are projected to reduce O&S costs incurred for B-2 legacy computers. There is no antecedent system for this modification capability.

Costs BY2007 \$M		
Cost Element	B-2 EHF SATCOM AND COMPUTER INCREMENT I	Antecedent System
Unit-Level Manpower	--	--
Unit Operations	--	--
Maintenance	--	--
Sustaining Support	--	--
Continuing System Improvements	--	--
Indirect Support	--	--
Other	--	--
Total Unitized Cost (Base Year 2007 \$)	--	--

Total O&S Costs \$M	B-2 EHF SATCOM AND COMPUTER INCREMENT I	Antecedent System
Base Year	--	--
Then Year	--	--